

REMARKS

Claims 1-25 were previously pending, of which claims 1-5 and 16-25 have been cancelled, claim 6 has been amended, claims 7-15 remain in their original form, and claims 26-31 have been added. Reconsideration of presently pending claims 6-15 and 26-31 is respectfully requested in light of the above amendments and the following remarks.

Specification

A reference to the disposition of the parent case has been added to the first line per the Examiner's suggestion. No new matter has been added.

Claim Rejections under 35 U.S.C. § 103

Claims 6-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Noguchi et al. (US Patent No. 4,469,283 hereinafter referred to as "Noguchi"). Applicant respectfully traverses this rejection on the grounds that the reference is defective in establishing a *prima facie* case of obviousness for the following mutually exclusive reasons.

Claim 6

Amended claim 6 recites:

An automatic surgical mill for pulverizing bone, comprising: a first casing member for housing a rotatable pulverizing bone cutter, the first casing member having an opening for receiving bone into the first casing member; a second casing member selectively connectable with the first casing member, the second casing member housing a coupling; a first sealing arrangement disposed between the first and second casing members; a third casing member selectively connectable with the second casing member, the third casing member housing a motor; and a second sealing arrangement disposed between the second and third casing members; **wherein the bone is pulverized in a manner for use in a concurrent surgical procedure.** (Emphasis added).

A. The cited reference is from a nonanalogous art

In the present application, an automatic surgical mill for pulverizing bone is disclosed while the Noguchi patent is limited to a coffee bean grinder. The 35 U.S.C. § 103 requires that obviousness be determined on the basis of whether at the time the invention was made a person of ordinary skill in the art to which the subject matter pertains would have found the claimed invention as a whole obvious. Although one of ordinary skill in the art is presumed to be aware of all prior art in the field to which the invention pertains, he or she is not presumed to be aware of prior art outside that field and the field of the problem to be solved, *i.e.*, nonanalogous art. Accordingly, in assessing the propriety of any assertion of prior art as a basis for a *prima facie* case of obviousness, one must determine the scope and bounds of the knowledge of one of ordinary skill in the art, *i.e.*, the analogous art presumably known by one of ordinary skill in the art.

Here, since coffee grinding/food processing is clearly outside the field of **pulverizing bone in a manner so that it can be used in a concurrent surgical procedure**, the cited reference is from a nonanalogous art, thus, precluding any *prima facie* case of obviousness. Thus for this independent reason alone, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103(a) should be withdrawn.

B. The cited reference does not teach or suggest all claim limitations

As provided in MPEP § 2143, "[t]o establish a *prima facie* case of obviousness,...the prior art reference (or references when combined) must teach or suggest all the claim limitations." Applicant respectfully submits that the rejection of claim 6 should be withdrawn at least because the reference does not meet this requirement.

Amended claim 6 recites in part, "An automatic surgical mill for pulverizing bone, comprising: a first casing member for housing a rotatable pulverizing bone cutter, **the first**

casing member having an opening for receiving bone into the first casing member;...**a first sealing arrangement** disposed between the first and second casing members;...and **a second sealing arrangement** disposed between the second and third casing members; **wherein the bone is pulverized in a manner for use in a concurrent surgical procedure.**” However, as stated in the Office Action, Noguchi “discloses the basic apparatus except for the use of an opening in the upper portion.” (See Office Action, pg. 2). Additionally, Noguchi does not disclose any type of sealing arrangement disposed between the casing members and does not disclose pulverizing material in a manner for use in a concurrent surgical procedure. Therefore, the Examiner’s burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to claim 6 and the rejection under 35 U.S.C. §103(a) should be withdrawn.

C. The cited reference’s intended function would be destroyed if modified

The Office Action indicated that the Noguchi reference “discloses the basic apparatus except for the use of an opening in the upper portion....[I]n order to render the apparatus more efficient, it would have been obvious for one of ordinary skill in the art to modify Noguchi by providing an opening in the upper portion....” (See Office Action, pg. 2). Applicant respectfully traverses this assertion. It is clear that modifying Noguchi by providing an opening in the upper portion would destroy the purpose or function of the invention disclosed in Noguchi. More particularly, Noguchi relies on the air flow created in the coffee mill via the rotating cutter 15 and the **enclosed arrangement** of the partition wall 7, the receiving space 8, the waste catching space 9, and the various holes 10, 11 therethrough to achieve the intended function of separating the waste components of the coffee bean from the useful components during grinding. (See generally Noguchi, col. 3, lines 36-68; col. 4, lines 1-20).

Accordingly, modifying Noguchi by providing an opening in the upper portion would adversely affect the desired air flow taught by Noguchi, and one of ordinary skill in the art would not have found a reason to make the claimed modification. Thus, for this mutually exclusive reason, the Examiner’s burden of factually supporting a *prima facie* case of obviousness has not

been met and the rejection under 35 U.S.C. §103(a) should be withdrawn.

D. The cited reference teaches away from the claimed subject matter

In the present case the Noguchi reference, by providing an “**air flow producing means in said mill casing** for producing air flow passing between said cutter receiving space and said waste component catching space,” clearly teaches away from claim 6. (See Noguchi, col. 7, lines 62-65). Claim 6 recites in part, “An automatic surgical mill for pulverizing bone, comprising: a first casing member for housing a rotatable pulverizing bone cutter, **the first casing member having an opening** for receiving bone into the first casing member.” Therefore, an opening in the mill casing cover 4B of Noguchi would prevent air flow passing between the cutter receiving space 8 and the waste component catching space 9. (See Noguchi, col. 3, lines 36-61).

Since it is well recognized that teaching away from the claimed invention is *per se* demonstration of lack of *prima facie* obviousness, it is clear that the Examiner has not borne the initial burden of factually supporting any *prima facie* case of obviousness. Thus, for this reason alone, the rejection under 35 U.S.C. §103(a) should be withdrawn.

Dependent Claims 7-15

Claims 7-15 depend from and further limit claim 6 and should be allowable for at least the same reasons as set forth above for claim 6.

New Claims 26-31

A new independent claim 26 and claims 27-31 depending therefrom have been added. Claim 26 includes, “a third sealing arrangement disposed between the bone cutter and the second casing member; wherein the first casing member, the second casing member, the second sealing arrangement, and the third sealing arrangement are capable of maintaining a sterile environment

when separated from the third casing member.” None of the art of record teaches these limitations. Accordingly, new claim 26 and its dependent claims 27-31 are patentable.

Conclusion

It is clear from all of the foregoing that independent claims 6 and 26 are in condition for allowance. Dependent claims 7-15 and 27-31 depend from and further limit independent claims 6 and 26, and therefore are allowable as well.

An early formal notice of allowance of claims 6-15 and 26-31 is requested. The Examiner is invited to call the undersigned at the below-listed number if a telephone call would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



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Dated: February 3, 2006

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R-125618

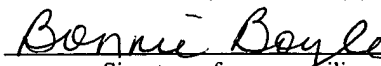
EXPRESS MAIL NO.: EV 622990229 US

DATE OF DEPOSIT: February 3, 2006

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